#### PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



August 23, 2011

FILE NO. EA2011-015

Brad Basset
Los Angeles Department of Water and Power
District Superintendent
3101 Artesian Street
Los Angeles, CA 90031

SUBJECT: Electric Audit of the city of Los Angeles Department of Water and Power

Dear Mr. Basset:

On behalf of the Utilities Safety and Reliability Branch of the California Public Utilities Commission, I conducted an electric Audit of Los Angeles Department of Water and Power (LADWP) on August 1 through August 5, 2011.

I found that LADWP's personnel did not document all General Order (GO) 95 and GO 128 violations at the time of inspections. In addition, LADWP did not have an inspection and maintenance program for its facilities as required by GO 95, 128, and GO 165. Attached to this letter is a list of the violations I observed during the audit.

Within 30 days from the date of this letter, provide us with a written response indicating the corrective measures taken by LADWP regarding the violations noted, and the date they were, or will be, corrected.

If you have any questions, you may contact me at (213) 576-7016.

Sincerely,

Mahmoud (Steve) Intably, P.E.

Utilities Engineer

Utilities Safety and Reliability Branch Consumer Protection and Safety Division

Enclosure: Violations List

### **Violations List**

# GO 165, Section IV, Paragraph 1: Standards for Inspection, Record-keeping, and Reporting

## Paragraph 1 states:

"Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to assure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in the attached table."

LADWP inspection records showed that its distribution facilities were not inspected periodically as specified in the table mentioned in the above rule. In addition, LADWP does not perform a detailed inspection on its overhead facilities and does not perform a patrolling inspection on its underground facilities.

# GO 165, Section IV, Paragraph 3: Standards for Inspection, Record-keeping, and Reporting

## Paragraph 3 states:

"Each utility subject to this General Order shall submit an annual report detailing its compliance with this General Order under penalty of perjury. The first report required under this section shall be filed with the Commission by no later than July 1, 1998. Each utility shall file subsequent annual reports for every following year by no later than July 1...."

LADWP does not submit an annual report to the Commission detailing its compliance with this General Order.

# GO 165, Section IV, Paragraph 5: Standards for Inspection, Record-keeping, and Reporting

## Paragraph 5 states:

"For all inspections, within a reasonable period, company records shall specify the circuit, area, or equipment inspected, the name of the inspector, the date of the inspection, and any problems identified during each inspection, as well as the scheduled date of corrective action. For detailed and intrusive inspections, companies shall also rate the condition of inspected equipment. Upon completion of corrective action, company records will show the nature of the work, the date, and the identity of persons performing the work"

When performing detailed inspections, LADWP personnel don't document all GO 95, and GO 128 violations, and don't rate the condition of the inspected facilities.

In addition, upon completion of corrective action, LADWP personnel don't record the date the work was performed. Furthermore, LADWP personnel don't document all GO 95 and GO 128 violations.

## General Order 95, Rule 31.2, Inspection of Lines

#### Rule 31.2 states:

"Line shall be inspected frequently and thoroughly for the purpose of ensuring that they are in good condition so as to conform with these rules. Lines temporary out of service shall be inspected and maintained in such condition as not to create hazard."

LADWP does not inspect its overhead facilities frequently and thoroughly to ensure that they are in good condition.

## GO 128, Rule 12.2, Maintenance

#### Rule 12.2 states:

"Systems shall be maintained in such condition as to secure safety to workmen and the public in general. Systems and portions thereof constructed, reconstructed, or replaced on or after the effective date of these rules shall be kept in conformity with the requirement of these rules.

A Electric Supply System - An Auditable and consistent maintenance program, see <u>Rule 22.4</u>, shall be in place to minimize deterioration of underground equipment."

LADWP does not have a maintenance program that includes procedures for inspection interval, rejection criteria, and corrective action, to minimize deterioration of underground equipment.

## GO 128, Rule 17.2, Inspection

### Rule 17.2 states:

"System shall be inspected by the operator frequently and thoroughly for the purpose of insuring that they are in good condition and conformance with all applicable requirements of these rules."

LADWP does not inspect its facilities frequently and thoroughly to ensure that they are in good condition.

List of General Order (GO) 95 and GO 128 violations that were observed during the field part of the audit and were not identified and documented by LADWP's personnel during the inspection:

# GO 95, Rule 18A, Resolution of Safety Hazards And General Order 95 Violations

### Rule 18.1 states:

"Each company (including utilities and CIPs) is responsible for taking appropriate corrective action to remedy safety hazards and GO 95 violations posed by their facility..."

On February 25, 2011, LADWP inspected the following poles and found safety conditions that needed to be corrected within a month but the safety conditions still existed at the time of my field audit:

- Poles numbered 188541M and 427023H had broken crossarms.
- Pole number 197084M had broken crossarms.
- Pole number 888763M had a blown fuse on a capacitor bank.

Pole number 134125M was inspected in 2000 and found to be deteriorated but LADWP failed to take action to replace the pole.

# GO 95, Rule 31.1, Design, Construction and Maintenance

### Rule 31.1 states:

"Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service."

Poles numbered 427023H and 45742M had sunken insulators.

## GO 95, Rule 35, Tree Trimming

#### Rule 35 states:

"Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of vegetation in new construction and when circuits are reconstructed or repaired, whenever practicable. When a utility has actual knowledge, obtained either through normal operating practices or notification to the utility, that any circuit energized at 750 volts or less shows strain or evidences abrasion from vegetation contact, the condition shall be corrected by reducing conductor tension rearranging or

replacing the conductor, pruning the vegetation or placing mechanical protection on the conductor(s). For the purpose of this rule, abrasion is defined as damage to the insulation resulting from the friction between the tree and conductor. Scuffing or polishing of the insulating covering is not considered abrasion. Strain on a conductor is present when deflection causes additional tension beyond the allowable tension of the span. Contact between vegetation and conductors, in and of itself, does not constitute a violation of the rule."

Pole number 201104M had an overhead conductor in contact with a tree and showing signs of burn marks.

# General order 95, Rule 54.8B(4)(a)

Rule 54.8B(4)(a) states:

"Service drop vertical clearances shall be maintained over all portions of buildings and structures as required by Table 10."

A triplex service drop supported on pole number 13447Y was touching the roof of a house.

General Order 95, Rule 54.9D requires low voltage conductors supported as a group in rack construction for a span length of 150 or less to have a minimum vertical separation of 6 inches. A service drop in a rack construction supported on pole number 188541M had conductors touching each other.

# GO 128, Rule 17.1, Design, Construction and Maintenance

### Rule 17.1 states:

"Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service..."

The cover of underground structure number 1327717, located on the sidewalk, was uneven with the sidewalk; thus, creating a tripping hazard to pedestrians.

Underground structure number 1199447 had cables that were not supported.